

WHAT IS CLAIMED:

1. An apparatus by means of which sheet-like products which follow one after the other along a feed section are transferred to a conveying arrangement with individually controllable grippers which can be moved in the conveying direction and are designed for gripping the products at their leading edge, the feed section having, in its end region which is directed toward the conveying arrangement, a conveying nip, in which the sheet-like products are retained, at least in part, on both sides, wherein, in the product-receiving region of the grippers, a positive stop, which is active during each product transfer, is provided for the leading edges of the products, the spacing between the positive stop and conveying nip being selected such that the trailing edges of the products are still located in the conveying nip when the leading edges strike against the positive stop.

2. The apparatus as claimed in claim 1, wherein at least part of the positive stop is of moveable design, in particular such that it can be moved synchronously with a gripper taking part in the product-receiving process.

3. The apparatus as claimed in claim 1, wherein the positive stop is of two-part design, the first part being of stationary configuration and the second part being of moveable configuration.

4. The apparatus as claimed in claim 3, wherein the moveable part of the positive stop is formed by an element of a gripper taking part in the product-transfer process.

5. The apparatus as claimed in claim 4, wherein the moveable part of the positive stop is formed by an, in particular leading leg or a guide surface, connected to said leg, of a gripper taking part in the product-transfer process.

6. The apparatus as claimed in claim 5, wherein the guide surface, in the closed state of the gripper, is oriented at least essentially parallel to the product abutment-surface of the trailing gripper leg.

7. The apparatus as claimed in claim 6, wherein the gripper legs can be pivoted individually and/or together about a pivot pin moving in the conveying direction and are coupled, in particular, to a transporting chain or to individual carriages.

8. The apparatus as claimed in claim 6, wherein each gripper leg, in the region of the conveying arrangement, is assigned a dedicated control guide which controls the opening and closing movement of the respective gripper legs.

9. The apparatus as claimed in one of claim 1, wherein the feed section is designed as a conveying belt, a pressure-exerting belt which can be driven at the speed of the conveying belt and runs, at least in part, parallel to the conveying belt being provided in that end region of the conveying belt which is directed toward the conveying arrangement, for the purpose of producing the conveying nip.

10. The apparatus as claimed in one of claim 9, wherein the feed section, in its end region which is directed toward the conveying arrangement, runs in a plane which is inclined in relation to the horizontal, in particular in an essentially vertical plane.

11. A method of operating an apparatus as claimed in claim 1, in the case of which:

the sheet like products, in that end region of the feed section which is directed toward the conveying arrangement, are transported through a conveying nip until they butt, by way of their leading edges, against the positive stop provided in the product-receiving region of the grippers;

the conveying movement through the conveying nip is continued and a closing movement of the grippers is initiated; and

the grippers are closed completely while the trailing edges of the products are still located in the conveying nip.

12. The method as claimed in claim 11, wherein the conveying movement through the conveying nip during the closing movement of the grippers each receiving a product takes place continuously.

13. The method as claimed in claim 12, wherein the speed of the products in the conveying nip and the transporting speed of the grippers during the product-transfer process are at least essentially constant.

14. The method as claimed in claim 13, wherein the speed of the products in the conveying nip and the transporting speed of the grippers during the product-transfer process are co-ordinated with one another such that the products butting against the positive stop are buckled, or pass into a curved-out state, before the grippers are closed completely.

15. The method as claimed in claim 14, wherein the speed of the products in the conveying nip and the transporting speed of the grippers during the product-transfer process are co-ordinated with one another such that the products which are gripped by closed grippers in their front region and have their rear region still located in the conveying nip are straightened out again without the products being subjected to destructive tensile loading.

16. The method as claimed in claim 15, wherein the closing movement of the grippers is at least essentially completed while the leading edges of the products butt against the positive stop.

17. The method as claimed in claim 11, wherein the guide surface, at least over a time interval immediately preceding completion of the closing movement of the gripper legs, is oriented at least essentially parallel to the respectively trailing gripper leg.

18. The method as claimed in claim 11, wherein the products the conveying arrangements are fed in one of a regular or irregular imbricated formation or at intervals from one another.